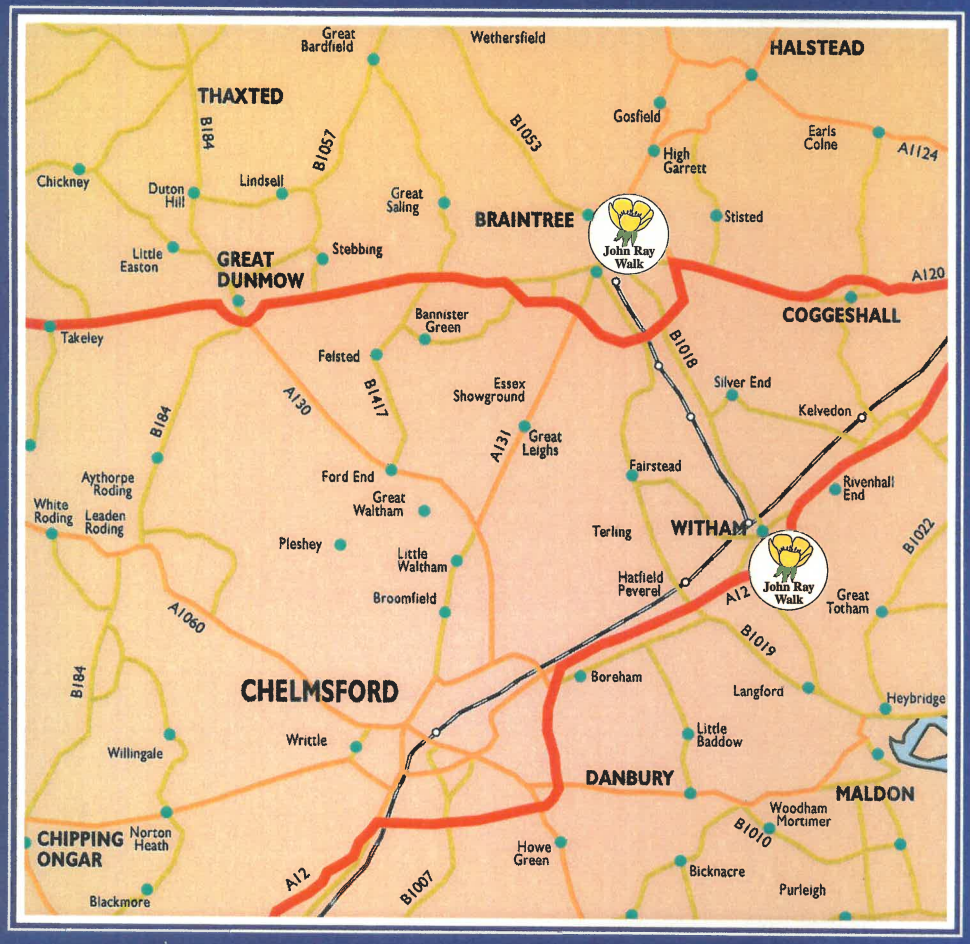
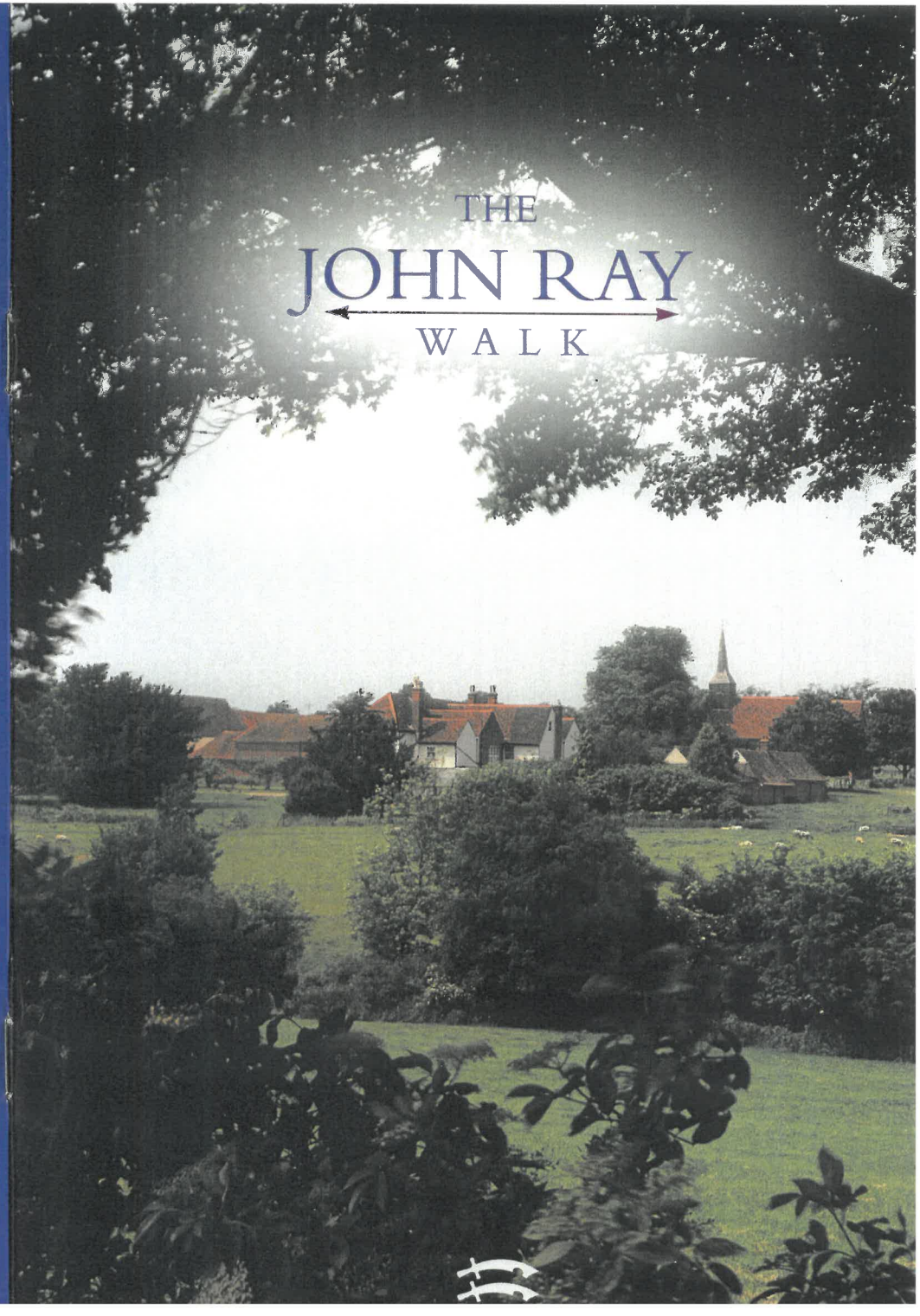


THE JOHN RAY WALK

A 9 mile linear walk between Braintree and Witham celebrating the life and achievements of John Ray.

Essex County Council
Transportation &
Operational Services



follow the waymarks

The John Ray Walk is clearly signposted and waymarked in both directions. The waymarks, together with the maps in the guidebook, should make the walk easy to follow.

Look out for the special John Ray Walk plaques with their distinctive buttercup logo and direction arrows. These are attached to fingerposts, lamp-posts, stiles, gates and posts and they indicate the route of the John Ray Walk. Three different coloured direction arrows are used:-

- **Yellow arrows** are used on public footpaths.
- **Blue arrows** are used on public bridleways. Look out for cyclists and horse riders.
- **Red arrows** are used on public byways. Look out for vehicles, as well as cyclists and horse riders.

Distance: Approximately 9 miles (14½kilometres)

Time: Allow approximately 3 - 4 hours

Maps: Ordnance Survey 1:25000 'Explorer Maps'
Chelmsford and the Rodings No.183
Braintree & Saffron Walden No. 195

Going: Easy walking through gently undulating countryside. The ground may be soft after rain. Strong boots or wellingtons recommended. Please remember that the countryside is a work-place and follow the Country Code. Keep to the way marked paths and use stiles and gates to cross fences. Please keep dogs under close control and on a lead wherever animals are grazing. Take care when crossing roads and railway lines.

Transport: The John Ray Walk is well served by public transport, beginning and ending at a railway station/bus stop. For information on trains and buses, please call the Essex Traveline on 0870 608 2 608.

Parking: Parking is available at Witham and Braintree Railway Stations and within the town centres. Limited parking is available in villages along the route. Please park with consideration.

Refreshments:

Pubs at Braintree, Black Notley, White Notley, Silver End and Witham.
Café at Cressing Temple open Sundays only (March to May and during October), Wed – Fri & Sunday (May to September) plus Easter Weekend and Bank Holidays. Opening times 10.30am-5.30pm.
Shops at Witham, Black Notley, Silver End and Braintree.

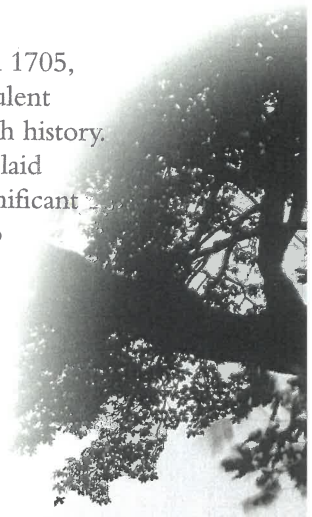
THE JOHN RAY WALK

" You ask what is the use of butterflies? I reply to adorn the world and delight the eyes men; to brighten the countryside like so many golden jewels. To contemplate their exquisite beauty and variety is to experience the truest pleasure."

JOHN RAY (1627 –1705)

Almost 400 years ago, in the small Essex village of Black Notley, Elizabeth Ray, the local herbalist and wife of Roger, the village blacksmith, gave birth to her third child. Their newly born son, christened John, would become one of the most distinguished natural historians of all time.

John Ray's long life, from his birth in 1627 to his death in 1705, spanned most of the 17th century - one of the most turbulent periods of political, social and intellectual change in British history. Many of the foundations of modern scientific study were laid down in the 17th century and John Ray would play a significant role in the field of botany. Indeed, his influence proved to be so profound that he is now widely regarded as the father of British Natural History.



To celebrate the life and achievements of this great man, the John Ray Walk has been devised. This 9 mile linear walk, linking the towns of Braintree and Witham, passes through the delightful countryside of the Brain Valley, the birthplace and home of John Ray.

We hope that you enjoy walking the John Ray Walk.

THE JOHN RAY WALK

The development of the John Ray Walk is a partnership between The John Ray Trust, Essex County Council, Braintree District Council, the Ramblers Association and Parish Councils along the route. The walk is one of a number of environmental projects devised to celebrate the life and achievements of John Ray. The walk is 9 miles long and links the towns of Braintree and Witham. It is linear and can be walked in either direction. The start/end point in both towns is the railway station.

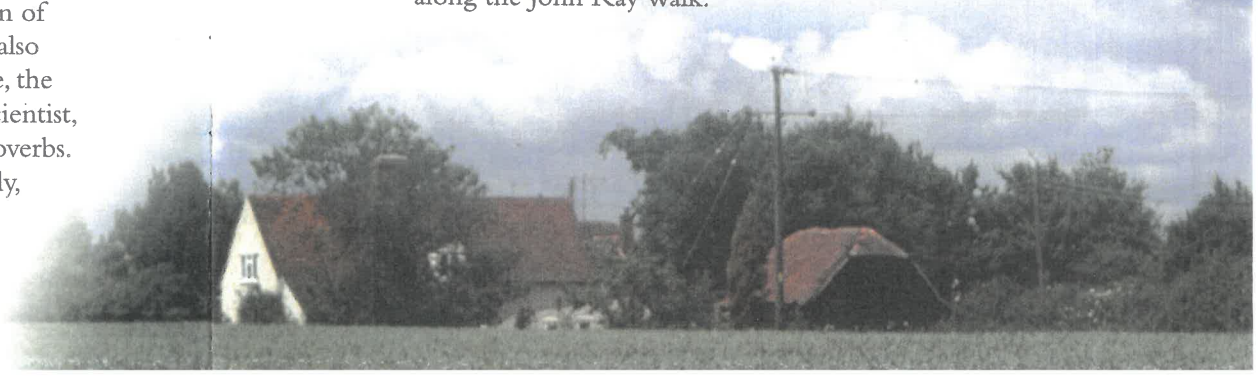
The walk also provides a link between the two former railway lines, the Flitch Way (Braintree to Bishops Stortford) and the Blackwater Rail Trail (Maldon to Witham). These disused railway lines are now managed by Essex County Council as Country Parks. Since their demise as railways, nature has reclaimed them to provide excellent homes for many plants and animals. Foxes make their homes in the disused drainage pipes whilst slow-worms and snakes take advantage of the grassy banks for basking in the sun. You can explore and enjoy these wildlife havens, as no doubt John Ray would if he were alive today.

John Ray was an extraordinary man. Heralded as the father of English natural history he was a pioneer, way ahead of his contemporaries in terms of knowledge and understanding of the natural world. One of Ray's greatest achievements was to lay the foundations for the classification of all living things. In addition to being an eminent naturalist, he was also an influential philosopher, one of the most travelled men of his time, the author of over 25 books, an internationally honoured scholar and scientist, a brilliant linguist, an observer of local dialects and a collector of proverbs. His work was used by others whose names are better known, notably, Linnaeus and Darwin. Yet, inspite of his success, he did not seek popular acclaim but remained humble and sincere.

This coupled with the fact that as a scholar he wrote mainly in Latin may explain why he is less well known than he deserves to be.

In contrast to his extraordinary achievements, John Ray had a very ordinary start in life. His success is indeed a result of 'virtue, not birth'. He was born on 29th November 1627, in the small village of Black Notley in Essex. As you walk along Bakers Lane you pass beside the house where he was born, today named in his honour, 'The John Ray Cottage'. His father was the local blacksmith and his mother, the village herbalist. Whilst not particularly wealthy, both were respected members of the village community. At a time when all transport was by horse, the blacksmith was a man of importance. As a child, John Ray would spend hours watching his father at work in the forge. His fascination for how things are made and how they work would be significant in his later studies of anatomy.

The young John Ray undoubtedly gained his love of nature, especially of plants, from his mother as they walked together through the countryside around their home, collecting plants for her work. In his later life as he reflects on his childhood, John Ray writes, 'I remember that when I was a boy I saw the flowers of a Buttercup ...It was then frequent in gardens near my home'. Plaques bearing the buttercup logo will guide you along the John Ray Walk.



Ray also learnt a great deal about the medicinal uses of plants as his mother prepared herbal remedies to treat sick villagers too poor to pay the doctor. As you walk through the Brain Valley imagine mother and son collecting the bark from the white willow trees growing alongside the River, then returning home to prepare the bark into a cure for headaches. In the 17th century, magic and superstition still played a large part in the practice of medicine. Drugs such as essence of woodlice and peacock's dung were regularly used to treat jaundice and epilepsy and women were still being burnt alive on charges of witchcraft. Ray would later play a significant role in promoting the scientific investigation of the medicinal uses of plants in an attempt to combat this association with superstition and magic.

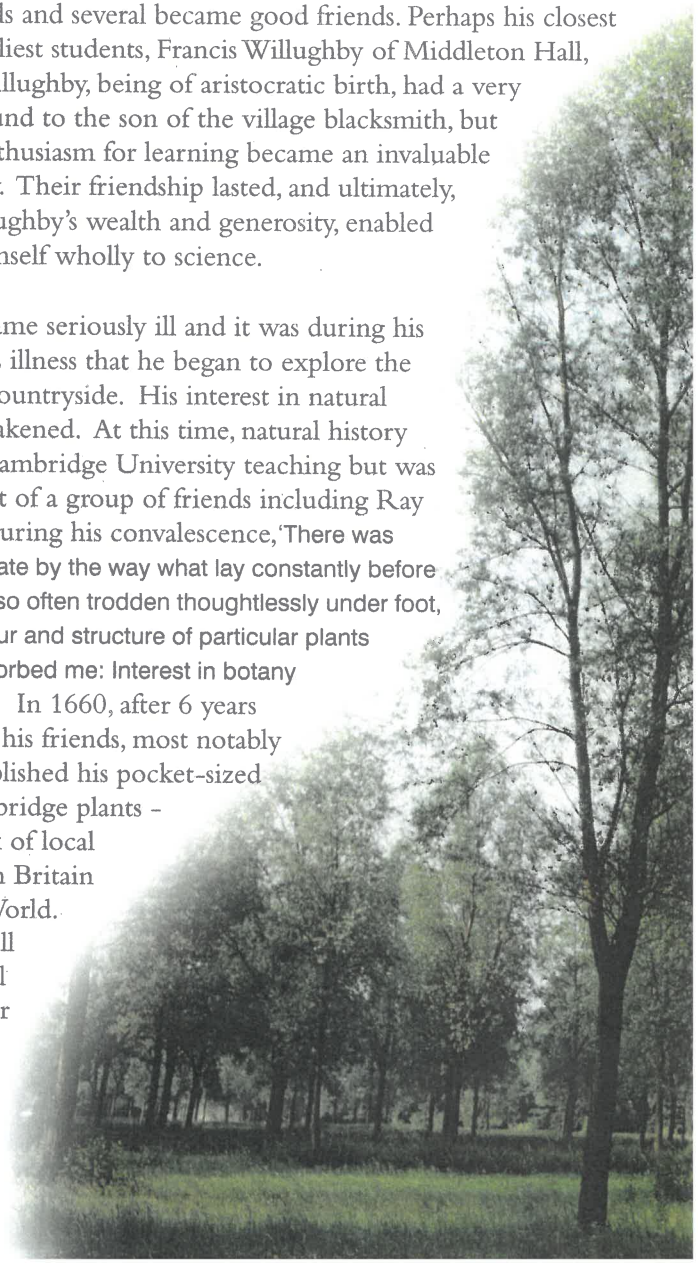
At the age of ten, Ray became a pupil of Braintree Grammar School, held in the Jesus Chapel of St. Michael's Church. On his way to school, he would walk alongside the River Brain observing the wild blackcurrant plants growing near Hoppet Bridge. At school he showed exceptional promise. He learnt Latin, the language commonly in use amongst educated people, trained his remarkable memory and developed an orderly, methodical mind.

Aged 16, Ray was awarded a scholarship to Catherine Hall at Cambridge University. Ray held deeply religious views, an influence from his mother, and was quiet and non-confrontational in his behaviour. He found life at Catherine Hall 'too disputatious' and in 1646 transferred to Trinity College. Ray rapidly became an expert in languages, mathematics and natural science and on gaining his degree he stayed on to lecture. He became a Fellow of the University in 1649, the year in which Charles I was tried and executed, the monarchy abolished and a republic, known as the Commonwealth, established.

THE JOHN RAY WALK

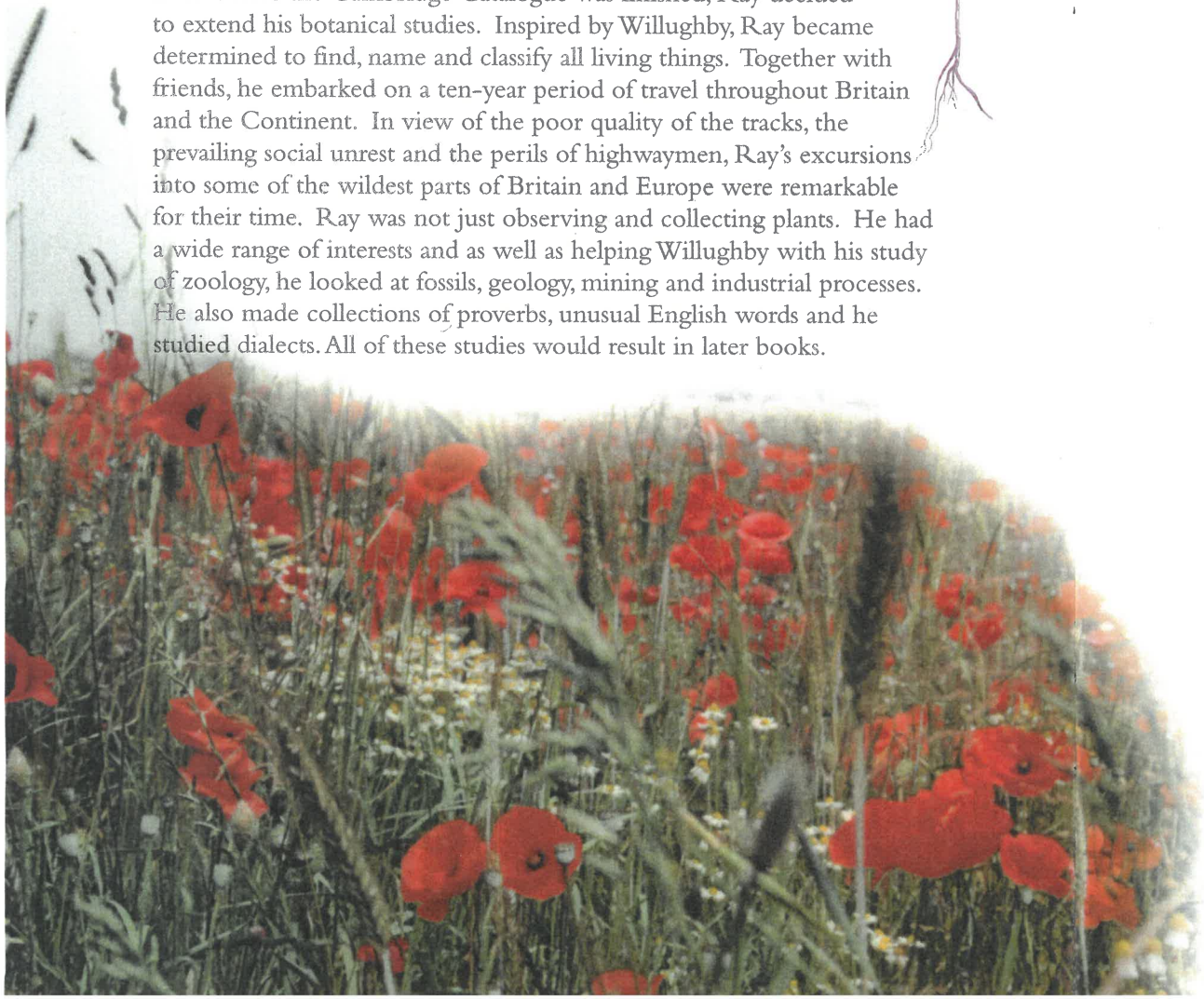
Ray had many pupils and several became good friends. Perhaps his closest was one of his earliest students, Francis Willughby of Middleton Hall, Warwickshire. Willughby, being of aristocratic birth, had a very different background to the son of the village blacksmith, but his vitality and enthusiasm for learning became an invaluable inspiration to Ray. Their friendship lasted, and ultimately, as a result of Willughby's wealth and generosity, enabled Ray to devote himself wholly to science.

In 1650, Ray became seriously ill and it was during his recovery from this illness that he began to explore the Cambridgeshire countryside. His interest in natural history was re-awakened. At this time, natural history had no place in Cambridge University teaching but was the private interest of a group of friends including Ray and Willughby. During his convalescence, 'There was leisure to contemplate by the way what lay constantly before the eyes and were so often trodden thoughtlessly under foot, ... the shape, colour and structure of particular plants fascinated and absorbed me: Interest in botany became a passion'. In 1660, after 6 years of fieldwork with his friends, most notably Willughby, he published his pocket-sized catalogue of Cambridge plants - the first ever book of local plants published in Britain and possibly the World. This work was well received and is still relevant today, over three hundred years later.



In 1656, following the death of his father, Ray built a house in Black Notley for his widowed mother to live in. The house was known as Dewlands and would later become his home. The house was destroyed by fire in 1900 and today the site is part of the Dewlands Housing Estate.

Even before the Cambridge Catalogue was finished, Ray decided to extend his botanical studies. Inspired by Willughby, Ray became determined to find, name and classify all living things. Together with friends, he embarked on a ten-year period of travel throughout Britain and the Continent. In view of the poor quality of the tracks, the prevailing social unrest and the perils of highwaymen, Ray's excursions into some of the wildest parts of Britain and Europe were remarkable for their time. Ray was not just observing and collecting plants. He had a wide range of interests and as well as helping Willughby with his study of zoology, he looked at fossils, geology, mining and industrial processes. He also made collections of proverbs, unusual English words and he studied dialects. All of these studies would result in later books.



THE JOHN RAY WALK

In the 17th century, the academic world and the Church were closely inter-connected. In 1660, when the Commonwealth ended and Charles II came to the throne, the Church enforced its control over education. In order to continue at the University, Ray accepted ordination into the Church.

Now aged 33, a successful career within Cambridge University lay before Ray. However, his decision to stay was short lived. Being a man of integrity, his conscience would not allow him to sign the Act of Uniformity and as a result, in 1662, he was forced to give up his Fellowship, and his livelihood, and leave Cambridge. It is ironic that this decision, painful to Ray at the time, would prove to be of immense benefit to the scientific world and indeed to his own personal happiness.

Debarred from work either as a clergyman or a teacher, a period of poverty could have followed. Fortunately, his friends, in particular Willughby, came to his aid. Following on from his extensive travels throughout Britain, in April 1663, Ray set out with his three friends, Willughby, Bacon and Skippon on a tour of the Continent. This would last three years. Their aim was to attempt the first systematic recording of the entire natural world. Eager to study plants and animals in their natural setting, they visited France, Belgium, Holland, Germany, Italy, Malta, Sicily, Austria and Switzerland. John Ray became the most travelled man of his time.

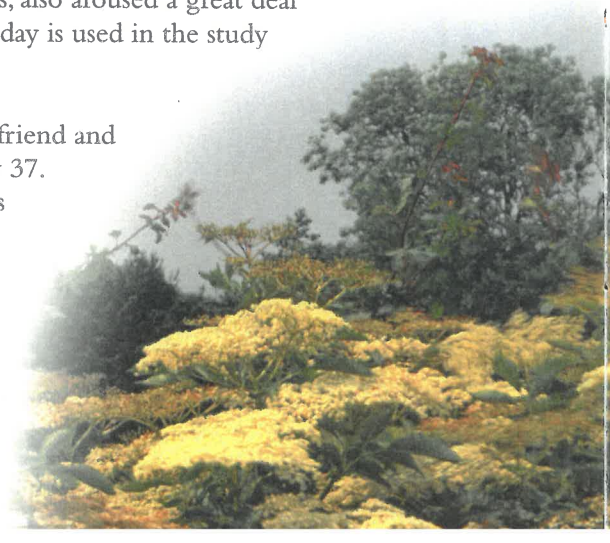
Without the convenience of railways, aircraft, or cars, travel could not have been very comfortable. They walked, rode or sailed and on occasion resorted to more unconventional means such as human-drawn barges along the Rhine and ox carts in Italy. Wherever they travelled, it was not only the different species of plants but also fish, birds, animals, insects, geology and the varied cultures of the different countries that were recorded. Ray was fascinated by every new experience and published incredibly detailed accounts of his travels.

In 1666, the English were ordered to leave France and Ray and his friends returned home to England. Ray spent much of the next six years with Willughby at Middleton Hall. In between travelling around England, Ray began to work his way through the huge amount of material they had collected on their travels. Before his death, Ray would publish systematic works on plants, birds, mammals, fish and insects, in which he brought order to the chaotic mass of names in use by naturalists of his time.

Ray also did experimental work in plant development and growth. Prior to Ray's experiments, the commonly held belief was that trees shed their leaves and grew new ones for all kinds of magical or superstitious reasons. His research was so well received that Ray was admitted into the newly-formed Royal Society of London, one of the world's first scientific societies, in 1667.

In 1670 Ray published two new books. The first, the pocket-sized Catalogue of English Plants was the first attempt to record the plants of England and includes an index on the medicinal uses of many of them. The book was extremely popular and of great interest to the increasing number of people studying botany. His second book, the Collection of English Proverbs, also aroused a great deal of interest at the time and even today is used in the study of folklore and dialect.

In July 1672, Willughby, his great friend and benefactor, died at the age of only 37. His death was a great personal loss for Ray. In his Will, Willughby provided Ray with an annuity of £60, together with the responsibility of educating his two sons. Consequently, Ray remained at Middleton Hall as tutor to Willughby's children.



BLACK NOTLEY HALL ►
ST PETER'S AND ST PAUL'S

In gratitude of his friend and benefactor, Ray felt that it was his duty to see that Willughby's zoological work was published. Ray completed and published Willughby's Ornithology (1676) and Historia Piscium (1686). Despite the fact that three-quarters of both of these immense encyclopaedias were Ray's own work, both are attributed to Willughby and Ray makes no mention of his own contribution.

In 1673, Ray married Margaret Oakley, a member of the Willughby household. She was only 19 but despite the age difference of almost 30 years their marriage was a happy one

Following the remarriage of Willughby's widow, Ray and his wife left Middleton and in 1677 moved into Faulkbourne Hall, Essex. Two years later, following the death of his mother, they moved into Dewlands, the house he had built for her in Black Notley. By 1689, John and Margaret Ray were the proud parents of four daughters. With his travelling adventures behind him and a happy, stable family life in the village of his childhood, Ray now devoted the rest of his life to preparing his detailed notes for publication. It should be remembered that his amazing achievements were accomplished before the modern technology we take so much for granted. No computers or electric lights, just a quill pen and candlelight.

To John Ray's delight, his young daughters would accompany him on his walks around the local countryside, observing and collecting insects and butterflies in particular. He records how his children caught Burnished Brass moths flying at dusk in the garden at Dewlands. Other plants were observed in the fields around their home - Herb Paris on the new housing development site at Black Notley, but in Ray's time a copse known as Lampit Grove; field garlic and musk orchids in the fields close to his home known then as Westfield and Wairefield.

THE JOHN RAY WALK

The huge medieval barns at Cressing Temple would have been familiar to Ray. Instead of the rather modest farmhouse which you will see today, Ray would have seen a large brick built mansion or Great House built in the previous century. The family who owned it sided with the King in the civil wars, and in a predominantly parliamentarian County, paid the price. Their property was raided and substantial fines were imposed. The grand house, which Ray may have seen in his youth, must have been sadly dilapidated when he returned to Essex in the 1670's. The property was sold and the house demolished soon after Ray's death in the early 18th century.

Where the route of the John Ray Walk crosses the railway line at White Notley heading towards Cressing Temple, the field is known as Warren Field. In Ray's time it would have looked very different from the arable field you see today. The field was a fenced enclosure or Warren for the farming of rabbits. In the 17th century rabbits were valuable animals providing fur and meat. The Warren was abandoned and the field converted to more general agricultural purposes in the 18th century.

Ray's most famous work was undoubtedly his Historia Plantarum, (History of Plants) published in three volumes in 1686, 1688 and 1704. The first two Volumes describe and classify almost 7000 species of British and European plants, of which all but 800 were known to Ray. The 3rd Volume contains a further 11,700 entries and gives descriptions of plants from Jamaica, the Philippines, Africa and the Far East.

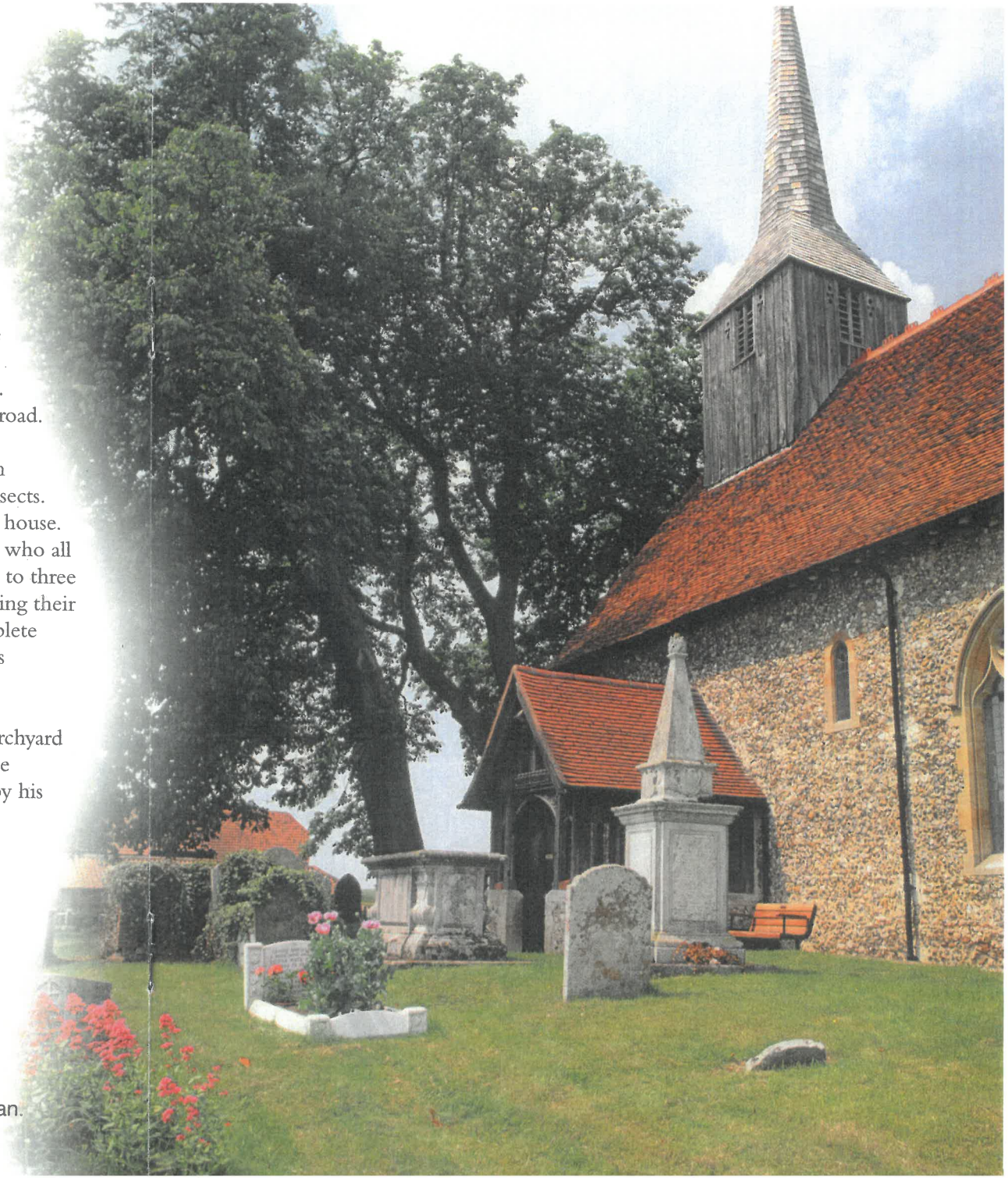
In the early days of botany, flowers were described as having 'coloured leaves' and it was John Ray who used the word Petal in the way we understand today. The terms Petal and Pollen **are both used for the first time in the Historia Plantarum. The Historia Plantarum combined Ray's own remarkable findings with the best of all that had gone before and resulted in one of the great foundation stones on which modern botanical science is based.**

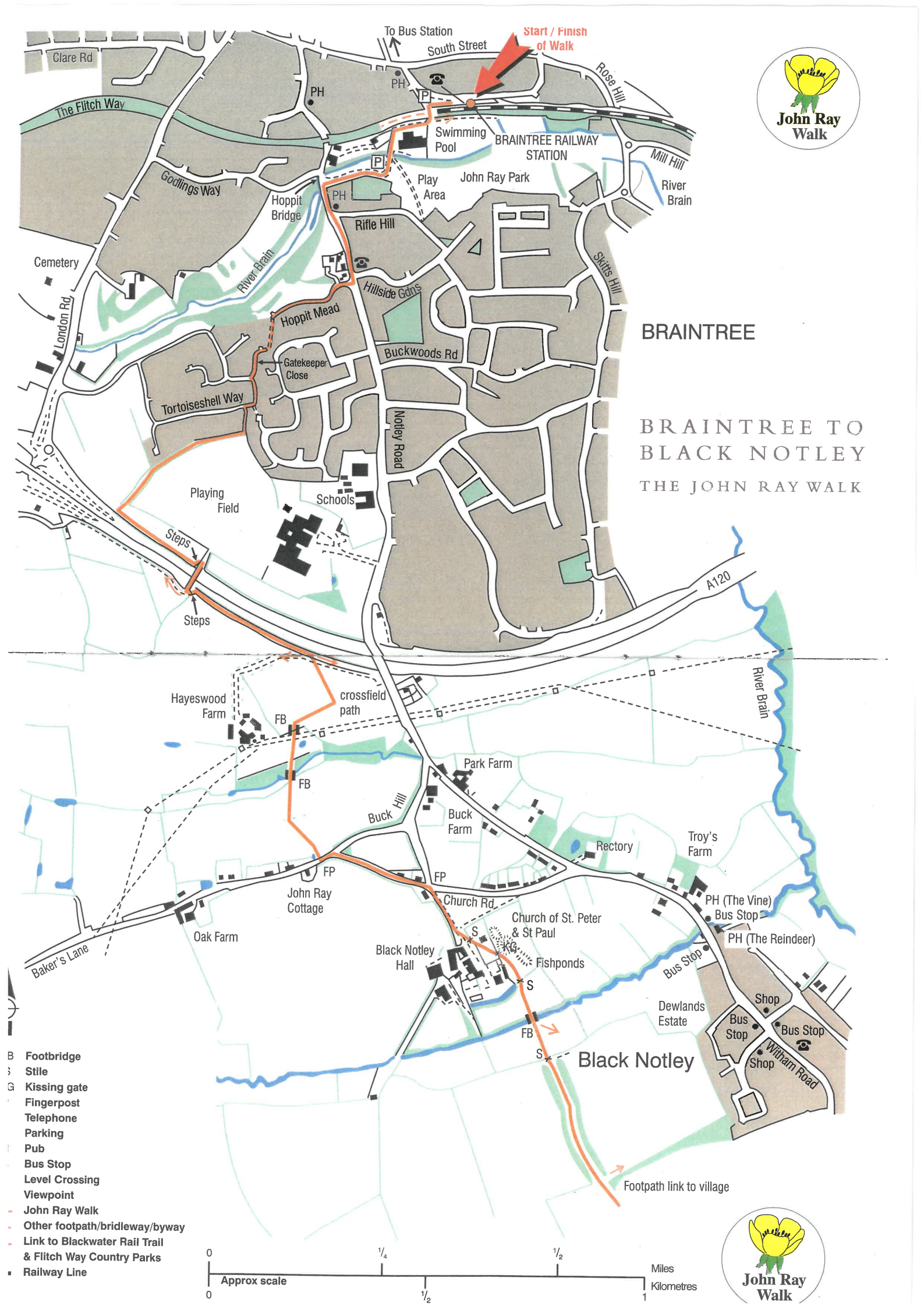
During the last years of his life, Ray was in poor health. Often only able to work two hours a day and more or less confined to the house he still managed to produce an incredible volume of work. In 1691 'The Wisdom of God Manifested in the Works of the Creation' was published. This theological book went some way towards addressing his inability to serve the Church as a preacher following his departure from Cambridge in 1662. Ray used his close study of nature coupled with his superb logic to produce the most influential book of its time. Written in English, it was widely read both in the British Isles and abroad.

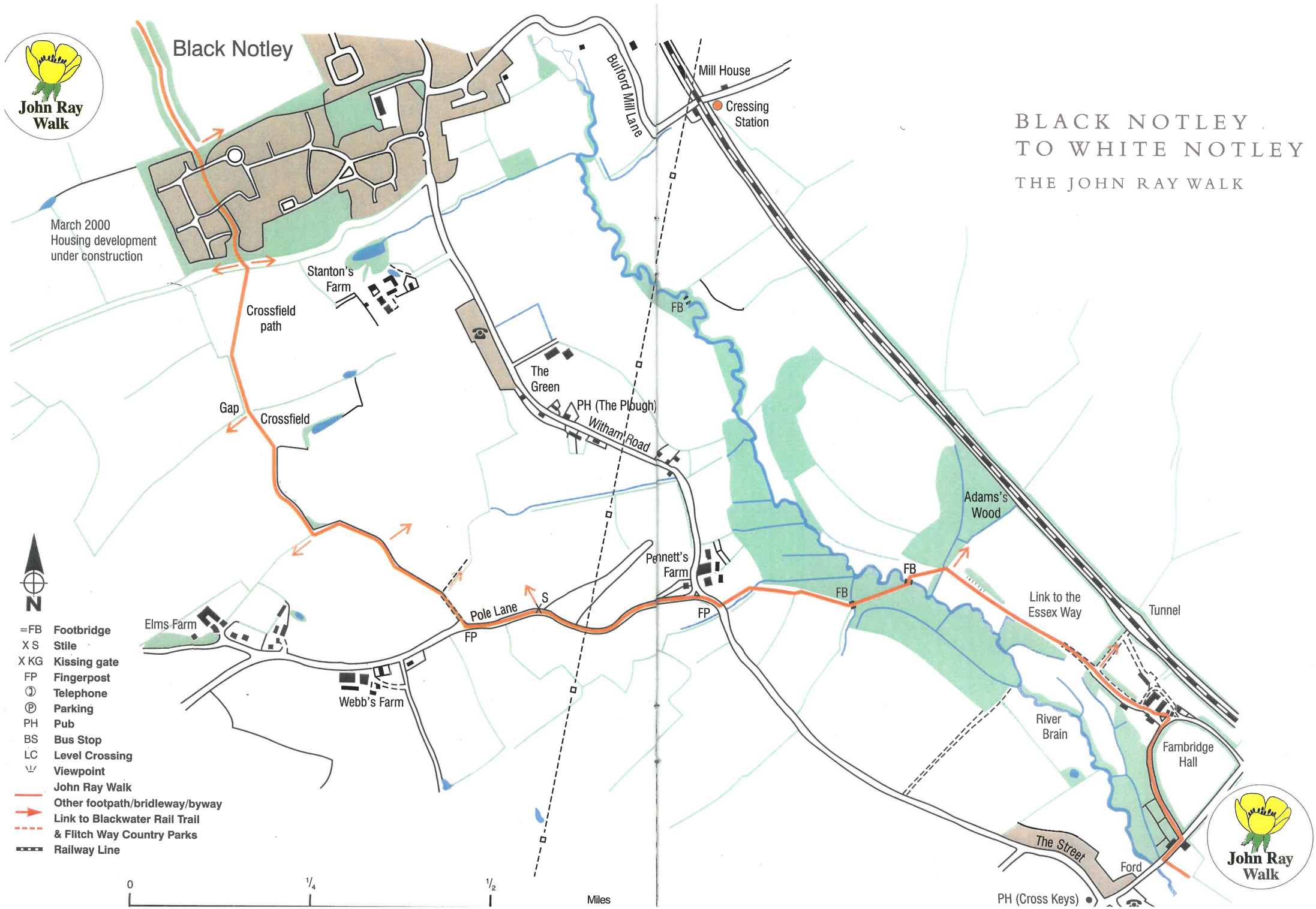
At the age of 75, Ray concentrated on the last subject to be tackled in his efforts to systematically record the whole of the natural world - insects. Wracked with pain from his ulcerated legs he was unable to leave the house. The majority of his specimens were caught by his wife and daughters who all collected caterpillars, moths, butterflies and other insects within a two to three mile radius of Dewlands. Ray would observe these specimens, recording their every detail. He studied and recorded for the first time ever the complete life-cycle of the butterfly. Unfortunately, his Historia Insectorum was unfinished at his death.

John Ray died on 17 January 1705. He was buried in the village churchyard at Black Notley, too humble to feel that he should be buried inside the church. The impressive monument that marks his grave was erected by his many friends and admirers.

As you follow the John Ray Walk, please stop for a while beside his grave and reflect on the life, times and achievements of this great man.

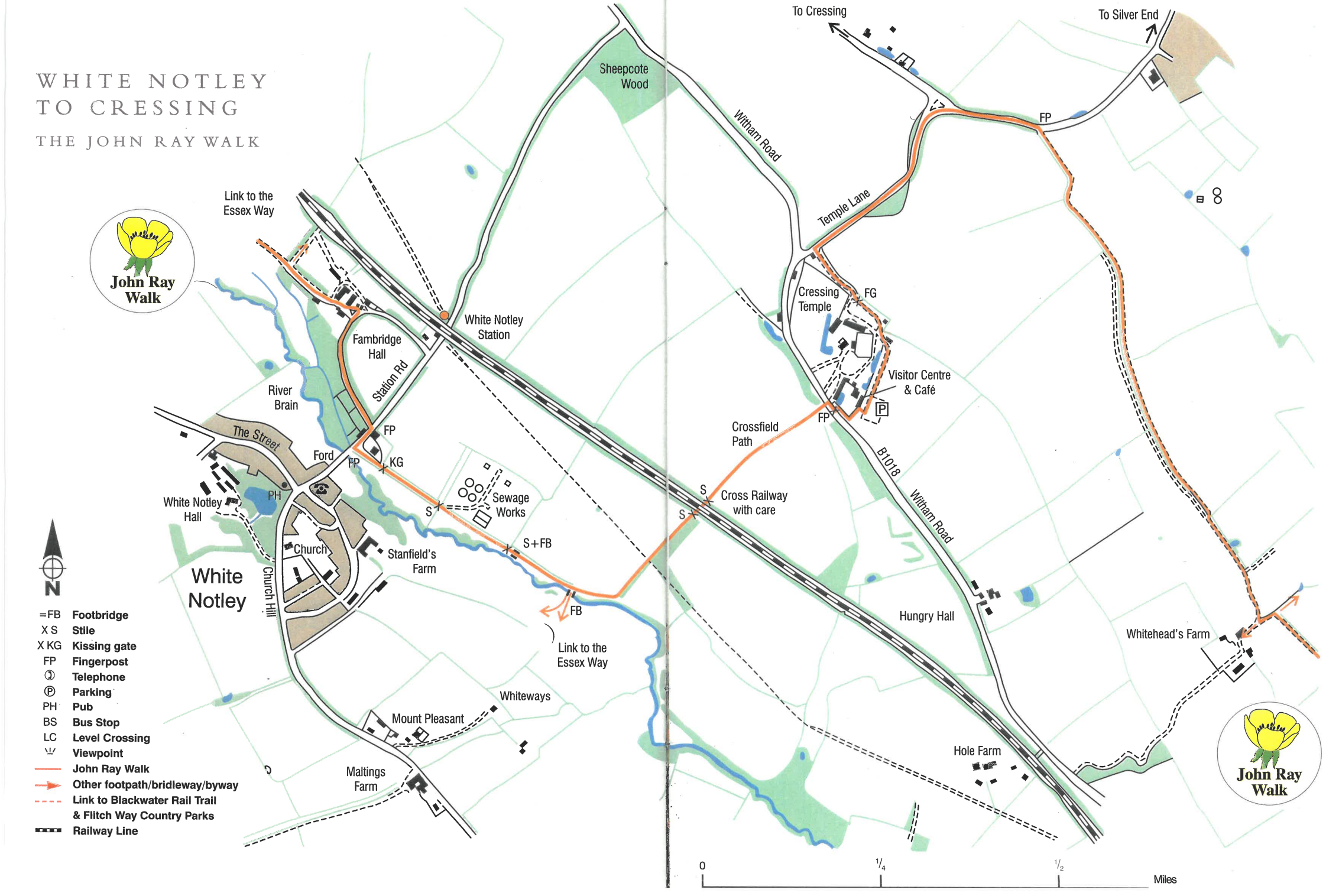



To Bus Station
South Street
Start / Finish of Walk
Clare Rd
PH
PH
PH
Rose Hill
The Flitch Way
Swimming Pool
BRAINTREE RAILWAY STATION
Mill Hill
Godlings Way
Hoppit Bridge
PH
Play Area
John Ray Park
River Brain
Rifle Hill
Cemetery
River Brain
Hillside Gdns
Skitts Hill
London Rd
Hoppit Mead
BRAINTREE
Buckwoods Rd
Gatekeeper Close
Tortoiseshell Way
Notley Road
BRAINTREE TO BLACK NOTLEY
THE JOHN RAY WALK
Playing Field
Schools
Steps
Steps
A120
Hayeswood Farm
FB
crossfield path
River Brain
Park Farm
FB
Buck Hill
Buck Farm
Rectory
Troy's Farm
FP
FP
John Ray Cottage
Church Rd
PH (The Vine)
Bus Stop
Church of St. Peter & St Paul
PH (The Reindeer)
Oak Farm
Baker's Lane
Black Notley Hall
Fishponds
Bus Stop
Dewlands Estate
Shop
Bus Stop
Bus Stop
Shop
Witham Road
FB
Black Notley
Footpath link to village
B Footbridge
S Stile
G Kissing gate
Fingerpost
Telephone
Parking
Pub
Bus Stop
Level Crossing
Viewpoint
John Ray Walk
Other footpath/bridleway/byway
Link to Blackwater Rail Trail & Flitch Way Country Parks
Railway Line
0
1/4
1/2
Miles
Approx scale
0
1/2
1
Kilometres
John Ray Walk


John Ray Walk
Black Notley
March 2000
Housing development
under construction
Stanton's Farm
Crossfield path
Gap
Crossfield
Bulford Mill Lane
Mill House
Cressing Station
FB
The Green
PH (The Plough)
Witham Road
Adams's Wood
Pennett's Farm
FB
FB
FP
Link to the Essex Way
Tunnel
Pole Lane
S
FP
Elms Farm
Webb's Farm
River Brain
Fambridge Hall
The Street
Ford
PH (Cross Keys)
John Ray Walk
BLACK NOTLEY
TO WHITE NOTLEY
THE JOHN RAY WALK
N
=FB Footbridge
X S Stile
X KG Kissing gate
FP Fingerpost
Telephone
Parking
PH Pub
BS Bus Stop
LC Level Crossing
Viewpoint
John Ray Walk
Other footpath/bridleway/byway
Link to Blackwater Rail Trail
& Flitch Way Country Parks
Railway Line
0
1/4
1/2
Miles

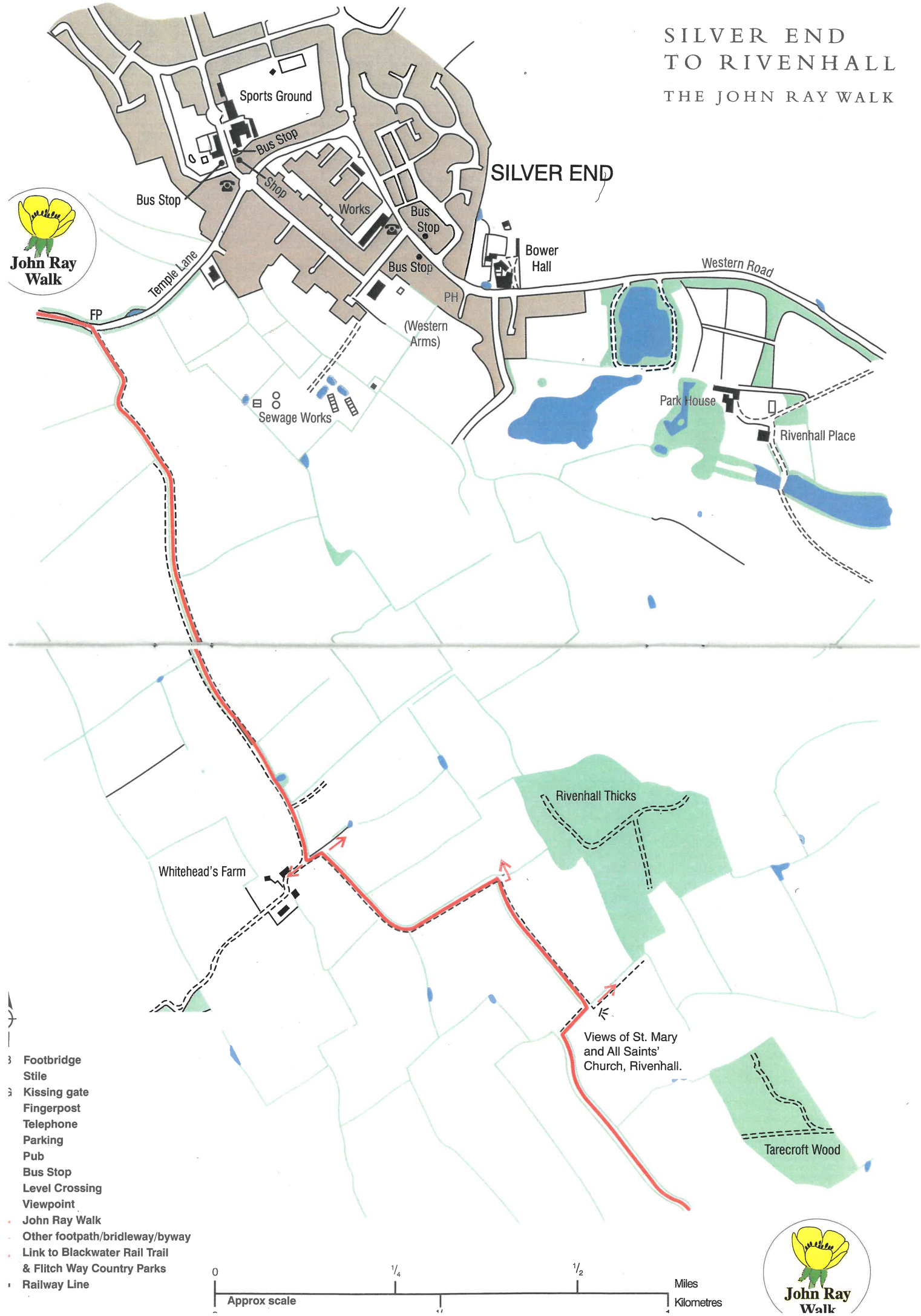
WHITE NOTLEY TO CRESSING

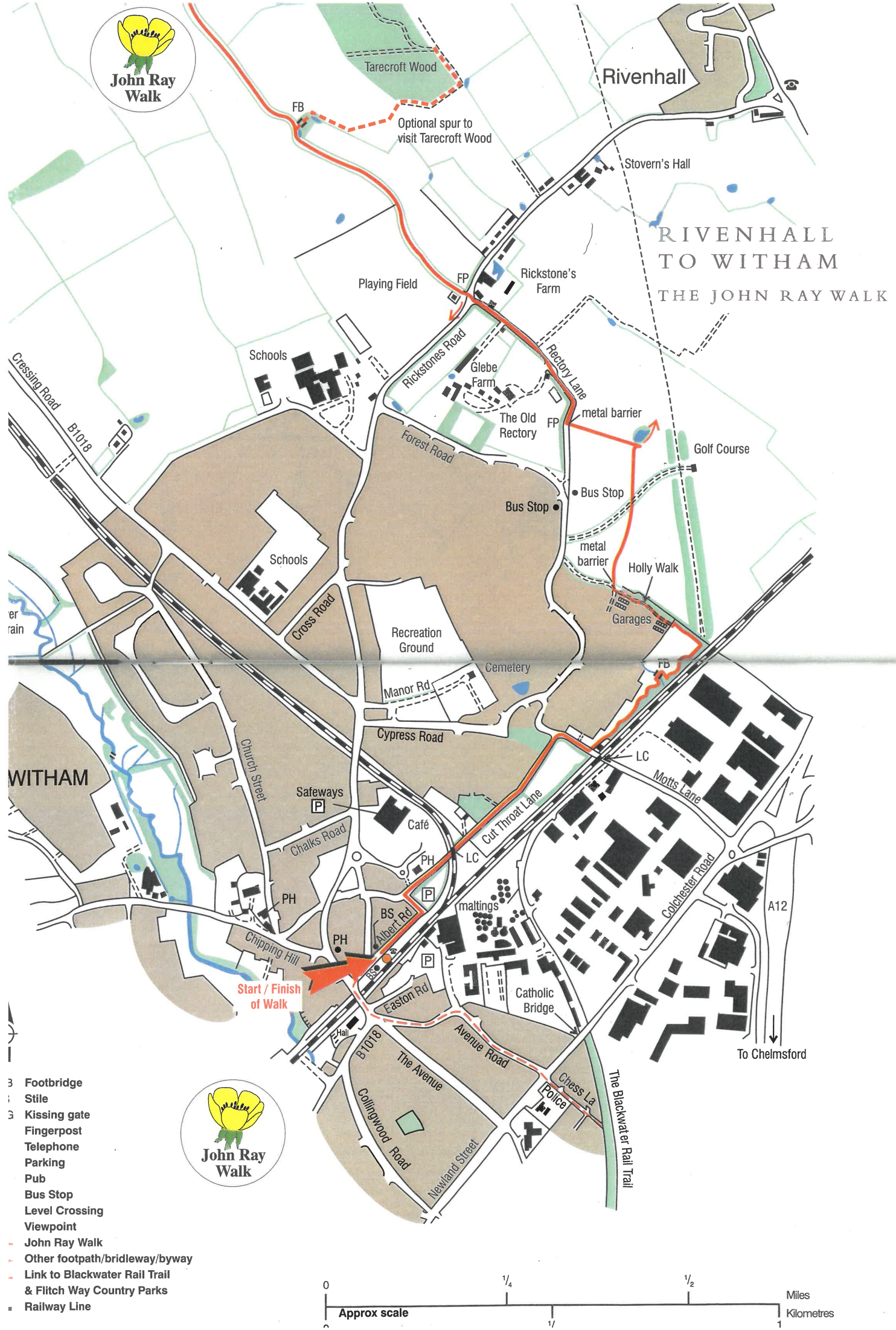
THE JOHN RAY WALK



SILVER END TO RIVENHALL

THE JOHN RAY WALK




John Ray Walk
Tarecroft Wood
Rivenhall
FB
Optional spur to visit Tarecroft Wood
Stovern's Hall
RIVENHALL TO WITHAM
THE JOHN RAY WALK
Playing Field
FP
Rickstone's Farm
Schools
Rickstones Road
Glebe Farm
Rectory Lane
The Old Rectory
metal barrier
Golf Course
Cressing Road
B1018
Forest Road
Bus Stop
Bus Stop
Schools
metal barrier
Holly Walk
Garages
Cross Road
Recreation Ground
Cemetery
FB
Manor Rd
Cypress Road
LC
Motts Lane
WITHAM
Church Street
Safeways
P
Café
Cut Throat Lane
Chalks Road
PH
LC
PH
P
maltings
Colchester Road
A12
BS
Albert Rd
Chipping Hill
PH
Start / Finish of Walk
BS
P
Easton Rd
Catholic Bridge
To Chelmsford
Hall
B1018
The Avenue
Avenue Road
Chess La
Police
The Blackwater Rail Trail
Collingwood Road
Newland Street
John Ray Walk
Footbridge
Stile
Kissing gate
Fingerpost
Telephone
Parking
Pub
Bus Stop
Level Crossing
Viewpoint
John Ray Walk
Other footpath/bridleway/byway
Link to Blackwater Rail Trail & Flitch Way Country Parks
Railway Line
0
1/4
1/2
Miles
Approx scale
Kilometres
1

John Ray Walk

Ways through Essex

Ways through Essex is Essex County Council's public rights of way project. Our aim is to help you enjoy the Essex countryside using the network of public footpaths, bridleways and byways which cross the County. For more information contact Ways through Essex at Essex County Council, County Hall, Chelmsford, Essex, CM1 1QH (01245) 437647.

The John Ray Trust

The John Ray Trust was founded in 1986 to commemorate the life and achievements of John Ray and to celebrate the 300th anniversary of the publication of his greatest work, Historia Plantarum. The main objective of the Trust is to raise funds for scholarships and bursaries to support research and academic achievement in the natural sciences and to ensure an increased awareness and appreciation of the work and life of John Ray. For more information contact The Administrator, The John Ray Trust, Town Hall Centre, Market Square, Braintree, Essex CM7 6YG.

Essex County Council would like to thank The John Ray Trust, Braintree District Council, Witham Town Council, the Parish Councils from Black Notley, Cressing, Rivenhall, Silver End, White Notley & Faulkbourne, The Ramblers Association, Roger Tabor, British Trust for Conservation Volunteers, The Ray Society for the use of illustrations in their care, and all of the landowners along the John Ray Walk for their assistance and co-operation throughout this project.
Photographs by Robert Hallman.

The information contained in this publication was, as far as is known, correct at the date of issue. Essex County Council cannot, however, accept responsibility for any errors or omissions or changes in details given. Please remember that the countryside is constantly changing, e.g. hedgerows and fencelines change and public rights of way can be diverted. If for any reason the route of the John Ray Walk is altered after the publication of this guidebook, the line of the new route will be waymarked. Walkers are therefore advised to follow the John Ray Walk waymarkers.

Based upon Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office.
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DISTANCE CHART (approximate)

Witham Rail Station to Temple Lane, Silver End – 3½ miles / 5½ km
Temple Lane, Silver End to White Notley Village – 1½ miles / 2½ km
White Notley Village to Black Notley Village – 2 miles / 3 km
Black Notley Village to St Peter & St Paul's Church – ½ mile / 1km
St Peter & St Paul's Church – Braintree Rail Station – 1¾ miles / 3 km

The Ramblers

Ways through ESSEX

The John Ray Trust

BRAINTREE DISTRICT COUNCIL